

REMARKS

Claims 1-7, 9-11, 14-24, 26, 28-36, 38 and 40-53 are pending. By this Amendment, claims 52 and 53 are added, claims 8, 12, 13, 25, 27, 37 and 39 are cancelled, and claims 1, 14-18, 28-30 and 40-45 are amended. The claims are amended to even more clearly distinguish over the applied references.

The amendments to the claims are supported in the original specification. With respect to the feature that the stage which holds and moves one of the substrate and the reticle, the stage is not supported by the support member, see, for example, the Fig. 7 embodiment, the description of which begins on page 13, line 10, and in which lens barrel holding plate 7 (a support member) does not support the reticle or wafer stage. With respect to the damper that isolates the projection system from the stage, see, for example, page 13, line 31 - page 14, line 3. With respect to claims 42-44, which now recite a reaction system that manages reaction forces, the discussion of reaction forces is provided throughout the specification. Thus, no new matter is added by the above amendments.

I. Information Disclosure Statement

The Examiner is requested to consider U.S. Patent No. 6,522,388, which is submitted with the attached Information Disclosure Statement.

II. All Formalities Have Been Resolved

The Examiner is thanked for identifying the typographical informality on page 10, line 1 of the specification. The above amendment to the specification overcomes this informality.

Claims 1-29 and 42-44 stand rejected under 35 U.S.C. §112, first paragraph. This rejection is respectfully traversed.

With respect to claims 1-29, the Office Action objected to the use of "main frame." The claims have been amended to eliminate "main frame." The support member now recited

in the claims is clearly supported throughout the specification. Applicant notes that claim 45, which already recited a support member, was not included in this rejection. Accordingly, Applicant respectfully submits that the rejection of claims 1-29 has been overcome.

With respect to claims 42-44, as noted above, "transaction system" has been changed to "reaction system", which is described throughout the specification. Applicant respectfully submits that the rejection of claims 42-44 has been overcome.

Withdrawal of the rejection under 35 U.S.C. §112, first paragraph is requested.

III. All Pending Claims are Patentable

Claims 1-12, 18-41 and 45-51 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,359,688 to Akimoto et al. in view of U.S. Patent No. 6,036,162 to Hayashi. This rejection is respectfully traversed.

The Office Action recognizes that Akimoto et al. does not disclose or suggest placing the claimed actuator on the holder of the projection system. The Office Action relies upon Fig. 7 of Hayashi for allegedly disclosing this feature. Applicant respectfully submits that the combination of Akimoto et al. and Hayashi does not disclose or suggest the combinations of features recited in the independent claims of this application.

Hayashi discloses that, for example, actuator 231B generates a force in the Y direction on the movable element 235B, which is fixed to the first column 224. See col. 19, lines 25-58 and col. 20, lines 11-28. The first column 224 supports the projection system and both stages. See col. 18, lines 7-26. Therefore, the force acts on the projection optical system 225 as well as the stages. In addition, there is no damper that isolates the projection system from the stage. Thus, neither of the applied references discloses or suggests the claimed combinations of claims 1, 18 and 30 in which a support member supports the projection system by a holder, an actuator is arranged (or mounted) on the holder, a stage that holds and moves one of a substrate and a reticle, the stage is not supported by the support member, the projection

system is isolated from the stage, and the actuator is driven in response to detected displacement of the projection system to suppress a strain of the holder resulting from resonance of the projection system. The references also do not disclose or suggest the combination recited in claim 45 including, inter alia, a damper that isolates the projection system from the stage, the projection system is supported by a support member (on which the claimed actuator is arranged), the stage is not supported by the support member. The claimed combinations are capable of isolating the projection system from the stages in a manner that is different from what is disclosed in Akimoto et al. and Hayashi. Accordingly, the combinations of features recited in the independent claims of this application are not disclosed or suggested by Akimoto et al. and Hayashi. Withdrawal of the rejection under 35 U.S.C. §103(a) is requested.

Claims 13-17 and 42-44 stand rejected under 35 U.S.C. §103(a) over Akimoto et al. in view of Hayashi, and further in view of U.S. Patent No. 5,959,427 to Watson. Watson does not provide the deficiencies noted above with respect to Akimoto et al. and Hayashi. Accordingly, claims 13-17 and 42-44 are patentable for at least the reasons set forth above with respect to their corresponding independent claims.

IV. Conclusion

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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MAC/ccs

Attachments:

Petition for Extension of Time
Information Disclosure Statement

Date: October 24, 2003

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